

**REMARKS**

This Application has been carefully reviewed in light of the Advisory Action mailed July 25, 2006 (“Advisory Action”). At the time of the Advisory Action, Claims 1-52 were pending in the application. To advance prosecution of this case, Applicants amend Claims 1, 4, 6, 8, 11, 13, 16, 20-22, 26, 27, 29, 31, 33, 36, 38, 41, 42, and 45-52. In addition, Applicants cancel Claims 12, 17, and 37. Applicants do not admit that any amendments are necessary due to any prior art or any of the Examiner’s rejections. Applicants respectfully request reconsideration and allowance of all pending claims.

**Section 103 Rejections**

***Claims 1-11, 13-15, 21-36, 38-40, 46, 47 and 49-52***

The Examiner rejects Claims 1-15, 21-40, 46, 47 and 49-52 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,192,404 B1 issued to Hurst, et al. (“*Hurst*”) in view of U.S. Patent No. 6,804,240 B1 issued to Shirakawa, et al. (“*Shirakawa*”). Applicants respectfully request reconsideration and allowance of Claims 1-11, 13-15, 21-36, 38-40, 46, 47 and 49-52.

The cited references fail to support the rejection of amended Claim 1 for several reasons. First, the cited references fail to teach, suggest, or disclose “sending a query from a caller node, the query comprising a delay constant” as recited in amended Claim 1. Second, the cited references fail to teach, suggest, or disclose “calculating a delay period based at least in part on the delay constant and a network address associated with the at least one node” as recited in amended Claim 1. Third, the Examiner has failed to properly identify a motivation for combining the teachings of *Hurst* and *Shirakawa*.

First, the cited references fail to teach, suggest, or disclose “sending a query from a caller node, the query comprising a delay constant” as recited in amended Claim 1. The Examiner relies on *Shirakawa* for “a delay period” as recited in amended Claim 1. (Advisory Action, p. 2). *Shirakawa* discloses a packet processing unit that searches databases based on information extracted from data packet headers. (*Shirakawa*; col. 8, ll. 37-48; col. 9, ll. 36-47). The cited portion of *Shirakawa* states:

In the packet processing unit 102, a search through a database (not shown) using a specific field of the header of the packet as a key will be carried out frequently. Suppose that there are plural algorithms for the database search, and that an amount of calculations or delay of the search is different depending on a type of the key and a distribution of that key on the database. This is a case that is often encountered in the database search for determining an output terminal (output interface) using a network address as a key.

(*Shirakawa*; col. 8, ll. 40-47). Thus, *Shirakawa* discloses a “delay of the search,” which the Examiner seems to equate with the “delay period” recited in amended Claim 1. (Advisory Action, p. 2). There is nothing, however, in the cited portion of *Shirakawa* that teaches, suggests, or discloses a “delay constant” or a “query comprising a delay constant” as recited in amended Claim 1.

*Hurst* also fails to teach, suggest, or disclose “sending a query from a caller node, the query comprising a delay constant” as recited in amended Claim 1. *Hurst* discloses a network wherein a base node waits a predetermined amount of time for response messages from other nodes in the network. (*Hurst*; col. 8, ll. 4-19). Specifically, the cited portion of *Hurst* states:

In an alternative embodiment, TTL determining logic 210 (FIG. 2) waits for a predetermined period of time for TTL query response messages from computers 102B-Y (FIG. 1). For those of computers 102B-Y from which TTL determining logic 210 (FIG. 2) does not receive a TTL query response message, TTL determining logic 210 stores a TTL distance record, which indicates that the TTL distance to the computers from computer 102A is undetermined, in TTL distance database 212. In this alternative embodiment, the predetermined period of time during which TTL determining logic 210 waits for TTL query response messages from the time at which TTL determining logic 210 sends the TTL query messages in step 410 (FIG. 4) is twice the predetermined period of time during which computers 102B-Y receive the TTL query messages, e.g., twenty (20) seconds which is twice ten (10) seconds.

(*Hurst*; col. 8, ll. 4-19). Thus, *Hurst* discloses a “predetermined period of time” that the base node waits for a response from a receiving node. (*Hurst*; col. 8, ll. 4-19). There is nothing, however, in the cited portion of *Hurst* that teaches, suggests, or discloses “a delay period”, “a delay constant”, or a “query comprising a delay constant” as recited in amended Claim 1. Because the cited references fail to teach, suggest, or disclose these aspects of amended Claim 1, the cited references fail to support the rejection.

Second, the cited references fail to teach, suggest, or disclose “calculating a delay period based at least in part on the delay constant and a network address associated with the at least one node” as recited in Claim 1. As shown above, neither *Shirakawa* nor *Hurst* teach, suggest, or disclose a “delay constant” as recited in amended Claim 1. In addition, neither of these references teach, suggest, or disclose “calculating a delay period based at least in part on the delay constant and a network address” as recited in amended Claim 1. Because cited references fail to teach, suggest, or disclose this aspect of amended Claim 1, the cited references fail to support the rejection.

Third, the Examiner has failed to properly identify a motivation for combining the teachings of *Hurst* and *Shirakawa*. In their Response to the prior Office Action, Applicants showed that neither *Hurst* nor *Shirakawa* provides a motivation for the proposed combination. The Examiner implicitly admits to this point in the Advisory Action but claims that the motivation to combine “is generally available to one or ordinary skill in the art.” (Advisory Action, p. 2). The Advisory Action states:

[T]he examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art....In this case, the knowledge is generally available to one of ordinary skill in the art.

(Advisory Action, p. 2). Notably, the Examiner provides no evidence to support the statement that “the knowledge is generally available to one of ordinary skill in the art.” This type of conclusory and unsupported assertion is improper. Such a statement is “not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references.” MPEP § 2143.01; *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). The Examiner must identify a suggestion (i.e., “objective reason”) to combine the references *and* provide evidence showing that the particular suggestion was “in the knowledge generally available to one of ordinary skill in the art.” Because the Examiner offers nothing more than unsupported and conclusory statements, the proposed combination is improper. For at least the foregoing reasons, Applicants respectfully request reconsideration and allowance of amended Claim 1.

In rejecting Claims 6, 21, 26, 31, 46, 47, and 49-52, the Examiner employs the same rationale used with respect to Claim 1. Accordingly, for reasons analogous to those stated

above with respect to amended Claim 1, Applicants respectfully requests reconsideration and allowance of amended Claims 6, 21, 26, 31, 46, 47, and 49-52.

Claims 2-5, 7-11, 13-15, 22-25, 27-30, 32-36, and 38-40 depend from independent claims shown above to be allowable. In addition, these claims recite further elements not taught, suggested, or disclosed by the cited references. For at least the foregoing reasons, Applicants respectfully request reconsideration and allowance of Claims 2-5, 7-11, 13-15, 22-25, 27-30, 32-36, and 38-40.

***Claims 16, 18-20, 41-45 and 48***

The Examiner rejects Claims 16-20, 41-45 and 48 under 35 U.S.C. 103(a) as being unpatentable over *Hurst* in view of U.S. Patent No. 5,471,461 issued to Engdahl, et al. ("Engdahl"), and further in view of *Shirakawa*. Applicants respectfully request reconsideration and allowance of Claims 16, 18-20, 41-45 and 48.

The cited references fail to support the rejection of amended Claim 16. At the outset, amended Claim 16 is allowable for at least the reasons stated above with respect to Claim 1. In addition, the cited references fail to teach, suggest, or disclose "determining an address of a node having a highest address in the network" and "determining, based at least in part on the highest address in the network, a query timeout period" as recited in amended Claim 16. Additionally, the *Hurst-Engdahl* combination is improper.

First, the cited references fail to teach, suggest, or disclose "determining an address of a node having a highest address in the network" and "determining, based at least in part on the highest address in the network, a query timeout period" as recited in amended Claim 16. In the Office Action dated April 20, 2006, the Examiner relies on *Hurst* for the foregoing aspect of Claim 16. The cited portion of *Hurst* states:

In step 502, TTL determining logic 310 (FIG. 3) of computer 102R receives a TTL query message from TTL determining logic 210 (FIG. 2) of computer 102A through computer network 100. In general, TTL determining logic 310 (FIG. 3) has no specific knowledge regarding the number and TTL parameter values of the TTL query messages sent by computer 102A (FIG. 1) and furthermore is uncertain as to which of the TTL query messages are expected to reach computer 102R. Specifically, some of the TTL query messages sent by computer 102A have TTL parameter values which are so low that these TTL query messages expire prior to reaching computer 102R. Accordingly, in step 504 (FIG. 5), TTL determining logic 310 (FIG. 3) starts a timer which measures a predetermined period of time during which TTL determining logic 310 assumes additional TTL query messages can be en route to computer 102R from computer 102A (FIG. 1). In one embodiment, the predetermined amount of time is ten seconds.

In steps 506-516 (FIG. 5), TTL determining logic 310 (FIG. 3) collects TTL query messages during the predetermined period of time and determines the lowest TTL parameter value of all TTL query messages received by computer 102R. The lowest TTL parameter value of any TTL query message to reach computer 102R is determined by TTL determining logic 310 to be the TTL distance between computers 102A (FIG. 1) and 102B. A message from computer 102A to computer 102R with a lower TTL parameter value would not reach computer 102R, and a message from computer 102A to computer 102R with a greater TTL parameter value would travel further than necessary through computer network 100 consuming excess bandwidth of computer network 100.

(*Hurst*; col. 6, ll. 49-67; col. 7, ll. 1-14). Thus, *Hurst* discloses a “predetermined period of time” that the base node waits for a response from a receiving node. (*Hurst*; col. 8, ll. 4-19). There is nothing in the cited portion of *Hurst* that teaches, suggests, or discloses a “highest address in the network” or “determining an address of a node having a highest address in the network” as recited in amended Claim 1. In addition, there is nothing in *Hurst* that teaches, suggests, or discloses “determining, based at least in part on the highest address in the network, a query timeout period” as recited in amended Claim 16.

*Engdahl* also fails to teach, suggest, or disclose these aspects of amended Claim 16. The cited portion of *Engdahl* discloses a network wherein the node with the lowest address serves as a moderator node. (*Engdahl*; col. 14, ll. 20-42). There is, however, nothing in *Engdahl* that teaches, suggests, or discloses “determining, based at least in part on the highest address in the network, a query timeout period” as recited in amended Claim 16. Because the cited references fail to teach, suggest, or disclose this aspect of amended Claim 16, the cited references fail to support the rejection.

Second, the *Hurst-Engdahl* combination is improper. In their Responses to the prior Office Actions, Applicants demonstrated in detail that modifying *Hurst* in view of *Engdahl* would render *Hurst* unsatisfactory for its intended purpose of determining TTL distances of receiving nodes in a short, defined amount of time -- namely, "in the amount of time required for a message to travel to the furthest node of the computer network and for a return message to be received by the base node from the furthest node of the computer network." (*Hurst*; col. 3, ll. 36-41). Instead of refuting this point, the Examiner merely provides conclusory statements that avoid the issue. For example, in the Advisory Action, the Examiner states that hindsight reconstruction is proper "so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure." (Advisory Action, p. 2). After making this conclusory statement, the Examiner fails to provide any evidence regarding what knowledge was within the level of ordinary skill in the art. As explained above, merely stating that a suggestion or modification is "within the level of ordinary skill" is insufficient to support a rejection under 35 U.S.C. § 103. MPEP § 2143.01. Accordingly, the *Hurst-Engdahl* combination is improper and must be withdrawn. If the Examiner continues to maintain the rejection based on the *Hurst-Engdahl* combination, Applicants request that the Examiner provide specific support for its conclusory statements. For at least the foregoing reasons, Applicants respectfully request reconsideration and allowance of amended Claim 16.

In rejecting Claims 41 and 48, the Examiner employs rationale analogous to that used with respect to Claim 16. Accordingly, for at least the reasons stated above with respect to amended Claim 16, Applicants respectfully request reconsideration and allowance of amended Claims 41 and 48.

Claims 18-20 and 42-45 depend from independent claims shown above to be allowable. In addition, these claims recite further elements not taught, suggested, or disclosed by the cited references. For at least these reasons, Applicants respectfully request reconsideration and allowance of Claims 18-20 and 42-45.

**CONCLUSION**

Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicants respectfully request full allowance of all pending claims.

If the Examiner feels that a telephone conference would advance prosecution of this Application in any manner, the Examiner is invited to contact Samir A. Bhavsar, Attorney for Applicants, at the Examiner's convenience at (214) 953-6581.

The Commissioner is hereby authorized to charge any fees or credit any overpayment to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.  
Attorneys for Applicants



Samir A. Bhavsar  
Reg. No. 41,617

Date: August 17, 2006

**CORRESPONDENCE ADDRESS:**

at Customer No.

**05073**